

WHAT IS CLAIMED IS:

1. An information medium which has a data area in which stream data can be recorded in a predetermined data recording unit, and a management area in which management information that pertains to the stream data can be recorded, wherein the management information can record:

first management information used to access the stream data;

second management information, being different from the first management information, used to access the stream data; and

third management information indicating a relationship between the first management information and second management information.

2. An information medium according to claim 1, wherein the stream data includes a bitstream compressed based on MPEG, and the second management information corresponds to a playback time of the stream data.

3. An information medium according to claim 1, wherein the management information includes a stream file information table which manages a stream object that forms a portion of contents of the stream data,

the stream file information table includes stream object information that manages the stream object, and

the stream object information includes access unit general information including the first management

information, and the third management information.

4. An information medium according to claim 1,
wherein the first management information includes
information used upon transferring the stream data, and
5 the second management information includes information
used upon displaying the stream data.

5. An information medium according to claim 2,
wherein the first management information includes
information used upon transferring the stream data, and
10 the second management information includes information
used upon displaying the stream data.

6. An information medium according to claim 3,
wherein the first management information includes
information used upon transferring the stream data, and
15 the second management information includes information
used upon displaying the stream data.

7. An information medium according to claim 1,
which has a data area in which stream data can be
recorded in a predetermined data recording unit, a
20 management area in which management information that
pertains to the stream data can be recorded, and first
time management information that pertains to the stream
data, wherein

the management information includes recording
25 information of the stream data.

8. An information medium according to claim 2,
which has a data area in which stream data can be

recorded in a predetermined data recording unit,
a management area in which management information that
pertains to the stream data can be recorded, and first
time management information that pertains to the stream
5 data, wherein

the management information includes recording
information of the stream data.

9. An information medium according to claim 3,
which has a data area in which stream data can be
10 recorded in a predetermined data recording unit, a
management area in which management information that
pertains to the stream data can be recorded, and first
time management information that pertains to the stream
data, wherein

15 the management information includes recording
information of the stream data.

10. An information medium according to claim 4,
which has a data area in which stream data can be
recorded in a predetermined data recording unit, a
20 management area in which management information that
pertains to the stream data can be recorded, and first
time management information that pertains to the stream
data, wherein

the management information includes recording
25 information of the stream data.

11. An information medium according to claim 1,
which has a data area in which stream data can be

recorded in a predetermined data recording unit, a management area in which management information that pertains to the stream data can be recorded, first time management information that pertains to the stream data, and a time management unit which is different from the first time management information and pertains to a playback time of the stream data, wherein

the management information includes recording management information that pertains to recording of the stream data, and

the time management information that pertains to recording is described in a format of the first time management information or the time management unit that pertains to the playback time.

12. An information medium according to claim 2, which has a data area in which stream data can be recorded in a predetermined data recording unit, a management area in which management information that pertains to the stream data can be recorded, first time management information that pertains to the stream data, and a time management unit which is different from the first time management information and pertains to a playback time of the stream data, wherein

the management information includes recording management information that pertains to recording of the stream data, and

the time management information that pertains to

recording is described in a format of the first time management information or the time management unit that pertains to the playback time.

5 13. An information medium according to claim 3,
which has a data area in which stream data can be
recorded in a predetermined data recording unit, a
management area in which management information that
pertains to the stream data can be recorded, first time
management information that pertains to the stream
10 data, and a time management unit which is different
from the first time management information and pertains
to a playback time of the stream data, wherein

the management information includes recording
management information that pertains to recording of
15 the stream data, and

the time management information that pertains to
recording is described in a format of the first time
management information or the time management unit that
pertains to the playback time.

20 14. An information medium according to claim 4,
which has a data area in which stream data can be
recorded in a predetermined data recording unit,
a management area in which management information that
pertains to the stream data can be recorded, first time
25 management information that pertains to the stream
data, and a time management unit which is different
from the first time management information and pertains

to a playback time of the stream data, wherein

the management information includes recording management information that pertains to recording of the stream data, and

5 the time management information that pertains to recording is described in a format of the first time management information or the time management unit that pertains to the playback time.

10 15. An information medium according to claim 7, which has a data area in which stream data can be recorded in a predetermined data recording unit, a management area in which management information that pertains to the stream data can be recorded, first time management information that pertains to the stream data, and a time management unit which is different from the first time management information and pertains to a playback time of the stream data, wherein

15 the management information includes recording management information that pertains to recording of the stream data, and

20

the time management information that pertains to recording is described in a format of the first time management information or the time management unit that pertains to the playback time.

25 16. An information recording method that uses an information medium which has a data area in which stream data can be recorded in a predetermined data

recording unit, and a management area in which
management information that pertains to the stream data
can be recorded, wherein the management information can
record first management information used to access the
5 stream data; second management information, being
different from the first management information, used
to access the stream data; and third management
information indicating a relationship between the first
management information and second management
10 information, said information recording method
comprising:

extracting the first management information from
stream data to be recorded;

15 extracting the second management information from
the stream data to be recorded;

recording the stream data in the data area of said
information medium; and

recording the third management information in the
management area of said information medium.

20 17. An information recording method that employs
a stream data recording device for recording stream
data, using a predetermined reference clock, obtained
from a stream data supply device, and that employs
an information medium which has a data area in which
25 stream data can be recorded in a predetermined data
recording unit, and a management area in which
management information that pertains to the stream data

can be recorded,

wherein the management information can record first management information used to access the stream data; second management information, being different from the first management information, used to access the stream data; and third management information indicating a relationship between the first management information and second management information,

said information recording method comprising:

executing a synchronization process of the predetermined reference clock between the stream data supply device and the stream data recording device;

correcting or modifying the third management information based on a result of the synchronization process of the reference clock; and

recording the corrected or modified third management information in the management area of the information medium.

18. An information recording method according to claim 17, wherein the third management information is created before the synchronization process of the reference clock is executed.

19. An information playback method that employs a stream data playback device having an internal clock, said information playback method comprising:

adjusting said internal clock to the predetermined reference clock when said stream data playback device

plays back the stream data from the information medium on which information is recorded according to the method of claim 17.

20. An information playback method for playing
5 back stream data from an information medium which has a data area in which the stream data can be recorded in a second data unit including a first data recording unit, and a management area in which management information that pertains to the stream data can be
10 recorded, wherein the management information can record first management information used to access the stream data; second management information, being different from the first management information, used to access the stream data; and third management information
15 indicating a relationship between the first management information and second management information, said information playback method comprising:

when the stream data has a plurality of continuous second data units,

20 checking a position difference from a neighboring boundary position of the plurality of continuous second data units to a position of the first data recording unit indicated by the second management information;

starting read of the stream data recorded on the
25 information medium from the neighboring boundary position but discarding or ignoring read data until the position of the first data recording unit indicated

by said position difference; and

starting playback of the stream data recorded on
the information medium from the position of the first
data recording unit indicated by said position
5 difference.

21. An information playback method for playing
back stream data from an information medium which has
a data area in which the stream data can be recorded in
a second data unit including a first data recording
10 unit, and a management area in which management
information that pertains to the stream data can be
recorded, wherein the management information can record
first management information used to access the stream
data; second management information, being different
15 from the first management information, used to access
the stream data; and third management information
indicating a relationship between the first management
information and second management information, said
information playback method comprising:

20 checking a start address of the second data unit
including the first management information;

discarding or ignoring playback information other
than an access position of the stream data indicated as
the first management information, using the checked
25 start address of the second data unit; and

sequentially playing back or sequentially
displaying only playback information at the access

position of the stream data.

22. A data structure applicable to an information medium which has a data area in which stream data can be recorded in a predetermined data recording unit, and
5 a management area in which management information that pertains to the stream data can be recorded, wherein the management information is capable of recording

first management information used to access the stream data;

10 second management information, being different from the first management information, used to access the stream data; and

third management information indicating a relationship between the first management information
15 and second management information.